

LAOS Laser - Feature #19

Laser on time logging

2012-07-25 12:06 - david

Status: Closed	Start date: 2012-07-25
Priority: Low	Due date:
Assignee:	% Done: 0%
Category: firmware	Estimated time: 0.00 hour
Target version:	
Description Seeing that the laser tube life is limited, it would be a nice feature to log the amount of time the tube has been on in flash or eeprom.	

History

#1 - 2012-07-27 12:12 - KalleP

I think it is a wonderful idea.

If possible also leave provision for later to have a non linear integration of tube use depending on the tube current or percentage. Perhaps to start use 1% power to equate to 50% tube wear and 100% power to equate to 100% tube wear. There may be a wear profile documented out there. You could also add in the number of time the tube is ignited. If this causes more wear than holding the tube at just below lasing current then one could decide to use 0.1% power setting when making rapid moves instead of disabling the tube powersupply completely, it might even allow for faster beam on time, it could be of use in the raster marking setup as well so the beam is never completely off.

So one could list the following

- Tube on hours
- Rapid moves hours
- Paused hours (errors, waiting for host, ?)
- Total operating hours

- Tube savings hours (correction for lower tube currents)
- Tube strikes
- Tube strike effective wear hours (estimated life lost due to total of strikes)

Total Tube Use (some kind combination of the above)

This would allow you to decide when you should order your replacement tube based on the life of the first tube you had.

#2 - 2012-07-28 12:31 - david

The detailed logging you propose only seems relevant is tube life varies only minimally between tubes. As I understand, the tube gradually wears out and loses power, so having a rough indication of laser on-time is probably enough to get a sense of how old the tube is.

#3 - 2014-08-17 21:09 - peteruithoven

- *Status changed from New to Closed*

Moved: <https://github.com/LaosLaser/Firmware/issues/39>